

MONTHLY PROGRESS REPORT

ORONOGO-DUENWEG MINING BELT SITE - PHASE 10 JASPER COUNTY, MO

CONTRACT NO: EP-S7-15-06

Prepared for

U.S. Environmental Protection Agency – Region 7
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1.0 INTRODUCTION

EQM Inc. (EQM), under Contract No. EP-S7-15-06, with the United State Environmental Protection Agency (USEPA) prepares this Monthly Progress Report (MPR) to summarize work completed by EQM under Operable Unit 1 of the Oronogo-Duenweg Mining Belt Site - Phase 10 in Jasper County, MO.

EQM was contracted by USEPA to perform the general requirements, erosion control, clearing and grubbing, material removal, seeding and fertilizing on the Phase 10 sites.

This report is organized into sections that present the project schedule and summarize the work activities performed during the reporting period, problems encountered, proposed solutions, corrective actions taken, outstanding issues, changes to organization or method of operation, project costs, submittals, and work planned for the next reporting period.

2.0 PROJECT SCHEDULE STATUS

Area	Clearing & Grubbing	Waste Removal	Clay Cap	Drainage	Topsoil	Final Grading	Seeding	Fencing	Original LOD (Ac)	Final LOD (Ac)
Base Area 1	100%	100%	100%	100%	n/a	100%	100%	100%	38.6	38.8
Base Area 2	100%	100%	100%	100%	n/a	100%	100%	100%	5.6	5.2
Base Area 3	100%	100%	100%	100%	n/a	100%	100%	100%	7.9	4.7
Base Area 4	100%	100%	100%	100%	n/a	100%	100%	100%	9.1	8.8
Base Area 6	100%	100%	100%	100%	n/a	100%	100%	n/a	14.5	12.1
Base Area 8	100%	100%	100%	100%	n/a	100%	100%	100%	27.7	22.9
Base Area 11	100%	100%	n/a	100%	100%	100%	100%	100%	6	4.6
Base Area 13	100%	100%	100%	100%	n/a	100%	100%	100%	13.2	9.3
Base Area 14	100%	100%	100%	100%	n/a	100%	100%	n/a	3.9	3.1
Base Area 15	100%	100%	100%	100%	n/a	100%	100%	100%	30.8	11.8
Cen. City Frwrks. Repos.	100%	n/a	100%	100%	100%	100%	100%	n/a	0	1.9
Opt. 1 Area 1	100%	100%	100%	100%	n/a	100%	100%	100%	35.4	30.1
Opt. 1 Area 2	100%	100%	100%	100%	n/a	100%	100%	100%	19	14.7
Opt. 1 Area 3	100%	100%	100%	100%	n/a	100%	100%	100%	21.4	19
Opt. 1 Area 6	100%	100%	100%	100%	100%	100%	100%	100%	14.7	15.2
Opt. 1 Area 9	100%	100%	100%	100%	n/a	100%	100%	100%	4.6	5.2
Opt. 1 Area 15	100%	100%	100%	100%	n/a	100%	100%	n/a	1.9	2
Opt. 1 Area 20	100%	100%	100%	100%	n/a	100%	100%	n/a	3.6	7.8
Balestrin Repository	100%	n/a	100%	100%	100%	100%	100%	n/a	0	3.1
Opt. 2 Area 1	100%	100%	100%	100%	n/a	100%	0%	0%	61.64	42.83
Opt. 2 Area 3	100%	100%	100%	100%	n/a	100%	100%	100%	17.8	29.4
Opt. 2 Area 5	100%	100%	100%	100%	n/a	100%	100%	n/a	8.4	7
Opt. 2 Area 6 - South	100%	100%	100%	100%	n/a	100%	100%	100%	146.9	94.1
Opt. 2 Area 6 - North	100%	100%	100%	100%	100%	100%	100%	100%	146.9 25.4	16.7
Opt. 2 Area 6 - West	87%	90%	20%	0%	0%	0%	0%	0%		
Opt. 2 Area 7	100%	100%	100%	100%	n/a	100%	100%	100%		24.3
Opt. 2 Area 8	100%	100%	100%	100%	100%	100%	100%	100%	12.8	36.7
Opt. 2 Area 9	100%	100%	n/a	100%	100%	100%	100%	n/a	n/a	2.4
Gypstack Modification	100% (Excluding Routine Maintenance)								N/A	

Area	Clearing & Grubbing	Waste Removal	Clay Cap	Drainage	Topsoil	Final Grading	Seeding	Fencing	Original LOD (Ac)	Final LOD (Ac)
MW-09	100%	99%	100%	100%	100%	100%	0%	50%	90.2	34.15
MW-14-01_02	100%	80%	0%	0%	0%	0%	0%	0%	44.61	
MW-18-01	80%	75%	75%	75%	0%	0%	0%	40%	56.96	
MW-26-01	100%	100%	100%	100%	n/a	100%	0%	97%	37.10	27.67
MW-26-04	100%	60%	0%	0%	0%	0%	0%	0%	2.14	
MW-26-05	100%	100%	95%	95%	0%	40%	0%	0%	8.97	

3.0 SUMMARY OF WORK ACTIVITIES PERFORMED THIS PERIOD

Mine Waste Remediation – Phase 10 (Option 2)							Monthly Totals																	
CLIN	Description	Quantity	Unit	Quantity to Date	Percent Complete	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan, 2018	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
2001	Erosion Control																							
2001AA	Sediment Fence	570	LF	570.0	100.0%						330.00							240						
2001AB	Rip Rap	915	Ton	915.0	100.0%			105.16	189.18	87.55	132.89							28.72	371.48					
2001AD	Stabilized Construction Entrance	6	Ea	6.0	100.0%		1.00	2.00			2.00				1									
2002	Clearing and Grubbing	160	Acre	116.3	72.5%							12.38			103.88									44.04
2003	Earthwork																							
2003AA	Excavation/Disposal of Contaminated Waste	982,381	CY	982,379.0	100.0%																			
						43,533	51,692	102,023	96,506	86,979	92,806	99,045	82,753	62,577	48,231	83,855	80,185	32,787	19,407					
2003AB	Placement of material for Drainage	96,721	CY	96,474.0	99.7%		1,952	11,637	4,672	3,447		1,992	5,778	8,864		42,914	400	6,736	7,792		290	247		
2003AC	Grade Excavated Areas to final grade	160	Acre	116.3	72.5%							12.38			103.88									44.04
2003AD	Import/Place Clay for all Repository Caps	48,810	CY	48,810.0	100.0%							1,898	8,102	20,438			3,408	5,812	8,604	548				
2003AE	Import/Place Topsoil for all Repository Caps	5,000	CY	5,000.0	100.0%														4,482	518				
2004	Seeding/Fertilizing																							
2004AA	Seeding/Fertilizing Repositories	1	Acre	1.3	98.5%				1.28															
2004AB	Seeding/Fertilizing (Fescue)	92	Acre	92.1	100.0%			13.81	2.39						75.9									
2005	Remove/Replace Fencing	5,370	LF	0.0	0.0%																			5370
2006	Supply/Install 24" CMP Pipe	164	lf	164.0	100.0%							60.00			60				44					
2007	Supply/Install 36" CMP Pipe	55	lf	55.0	100.0%														55					

Mine Waste Remediation – Phase 10 (Option 3)																							
CLIN	Description	Quantity	Unit	Quantity to Date	Percent Completed	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan, 2019	Feb	Mar	Apr	May	June	July	Aug	
3001	Erosion Control																						
3001AA	Sediment Fence	6,000	LF	2,150.0	35.8%	465							740	945		-	-	-	-	-			
3001AB	Rip Rap	2,500	Ton	2,041.7	81.7%	71		15				1,527	63					156.90	15.49	32.84		160.99	
3001AC	Stabilized Construction Entrance	6	Ea	4.0	66.7%	1	1		1		1									-			
3002	Clearing and Grubbing	300	Acre	159.5	53.2%						26			77						56.11			
3003	Earthwork																						
3003AA	Excavation/Disposal of Contaminated Waste	792,184	CY	794,100.0	100.2%	8,997	49,050	79,812	68,922	57,501	92,911	64,500	72,648	159,384	29,538	29,970	30,539	33,921	16,407	-			
3003AB	Placement of material for Drainage	100,000	CY	131,700.0	131.7%				4,352		33,549	22,715		38,379	384	5,563	13,969	2,659	-	10,130			
3003AC	Grade Excavated Areas to final grade	300	Acre	159.5	53.2%						26			77						56			
3003AD	Import/Place Clay for all Repository Caps	26,000	CY	41,143.0	158.2%		1,156		4,894		504	4,032	4,368		11,100	4,974	8,914	1,201	-	-			
3003AE	Import/Place Topsoil for all Repository Caps	15,000	CY	8,067.0	53.8%		1,324				2,734		1,686	2,323									
3004	Seeding/Fertilizing																						
3004AA	Seeding/Fertilizing Repositories	10	Acre	0.0	0.0%																		
3004AB	Seeding/Fertilizing (Fescue)	290	Acre	166.1	57.3%			166															
3005	Remove/Replace Fencing	10,000	LF	10,021.0	100.2%			1,070	3,485	1,505	31		2,815	1,115									
3006	Supply/Install 24" CMP Pipe	200	If	26.0	13.0%	6						20											
3007	Supply/Install 36" CMP Pipe	100	If	5.0	5.0%	5																	
3010	Rip Rap, 12"-36"	2,200	Ton	681.0	31.0%	112	88							481									
3011	Crushed Rock, 3" Clean	600	Ton	570.2	95.0%	87	27	28	56				83	196	81	-		13.00	-	-			
3012	Gravel, 1"-3" Crushed w/fines	1,400	Ton	5,016.8	358.3%	200								788	14	-		2,576.55	1,277.66	42.63		117.27	
3013	Powerline Relocation	1	LS	1.0	100.0%							1											
3014	Tire Disposal	40	Ton	44.7	111.7%					13				31									
3015	Powerline Relocation at Carl Junction	1	LS	1.0	100.0%																1.00		
3016	Demolition/Debris Disposal of R. Porter's Prop	1	LS	1.0	100.0%																0.60	0.40	

Mine Waste Remediation – Phase 10 (Option 4)																		
CLIN	Description	Quantity	Unit	Quantity to Date	Percent Completed	Apr, 2019	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	
4001	Erosion Control																	
4001AA	Sediment Fence	5,000.00	LF	2,716.0	54.3%				2,716									
4001AB	Rip Rap	2,000.00	Ton	0.0	0.0%													
4001AD	Stabilized Construction Entrance	4.00	Ea	3.0	75.0%	1		1		1								
4002	Clearing and Grubbing	200.00	Acre	0.0	0.0%													
4003	Earthwork																	
4003AA	Excavation/Disposal of Contaminated Waste	500,000.00	CY	161,232.0	32.2%			44,430	62,019	54,783								
4003AB	Placement of material for Drainage	100,000.00	CY	39,473.0	39.5%			36,365	360	2,748								
4003AC	Grade Excavated Areas to final grade	300.00	Acre	0.0	0.0%													
4003AD	Import/Place Clay for all Repository Caps	120,000.00	CY	15,286.0	12.7%	4,839		619	3,682	6,146								
4003AE	Import/Place Topsoil for all Repository Caps	60,000.00	CY	36.0	0.1%					36								
3004	Seeding/Fertilizing																	
4004AA	Seeding/Fertilizing Repositories	70.00	Acre	0.0	0.0%													
4004AB	Seeding/Fertilizing (Fescue)	200.00	Acre	45.5	22.8%				46									
4005	Remove/Replace Fencing	10,000.00	LF	3,476.0	34.8%				3,476									
4006	Supply/Install 24" CMP Pipe	200.00	lf	0.0	0.0%													
4007	Supply/Install 36" CMP Pipe	100.00	lf	0.0	0.0%													
4010	Rip Rap, 12"-36"	200.00	ton	1,239.8	619.9%	680	475	85										
4011	Crushed Rock, 3" Clean	200.00	ton	857.4	428.7%	112	296	32		418								
4012	Gravel, 1-3" Crushed w/fines	200.00	ton	0.0	0.0%													
4013	Tire Disposal	40.00	ton	0.0	0.0%													
4014	Phone Line Relocation	1.00	EA	0.0	0.0%													

4.0 PROBLEMS ENCOUNTERED / RFI's SUBMITTED

- No RFIs were submitted this reporting period. See RFI Log Attachment A
- The project site and region of southwestern Missouri continue to experience significant adverse weather conditions (i.e., extremely high/historic amounts of rain) which are impacting EQM's productivity by making field conditions too wet to conduct work.

5.0 PROPOSED SOLUTIONS

- Nothing at this time.

6.0 CORRECTIVE ACTIONS

- Nothing at this time.

7.0 OUTSTANDING ISSUES

- EQM has submitted a PoP extension in response to the adverse weather conditions experience in the first half of 2019. USEPA is reviewing and decision is pending.
- EQM needs to recover the original payment & performance bond since it was replaced by another bond from our new agent. Currently, USEPA is in possession of 2 bonds and EQM has requested USEPA return or issue EQM a release of the first, original bond since the original bonding company is retaining EQM's collateral until the bond is returned or released.

8.0 CHANGES TO ORGANIZATION OR METHOD OF OPERATION

- EQM changed ownership in July, 2019. EQM is now affiliated with ASRC Industrial Services. EQM has provided USEPA new payment and performance bonds to replace the bonds in-place since EQM changed bonding companies as a result of the new ownership.

9.0 MEETINGS AND CALLS

- USEPA Representatives, Steve Kemp and/or Todd Campbell, periodically contacted EQM's superintendent to check status of the work in progress.

10.0 SUBMITTALS

- A review of current planning documents identified a need for revision/updates. EQM submitted a final revision of the SAP, which includes the FSP & QAPP, via e-mail on 22 Feb 2018 in PDF format. EQM received review comments from USEPA on 10 Oct 2018 for the FSP & QAPP and submitted a revised document to USEPA on 15 Jan 2019. On Feb 4, 2019, EQM provided USEPA with a revised signature page including a signature block for the COR, Steve Kemp.

11.0 PROJECT COSTS

The following project costs are estimated for this reporting period:

Base Contract Value	\$3,685,978.44		
Prior Period Cumulative Costs	\$3,685,978.44	Prior Period Cumulative % Complete	100%
Current Period Costs	\$0.00	Current Period % Complete+	0.0%
Current Cumulative Costs	\$3,685,978.44	Current Cumulative % Complete	100%

Option 1 Contract Value	\$5,977,289.12		
Prior Period Cumulative Costs	\$5,973,773.30	Prior Period Cumulative % Complete	99.9
Current Period Costs	\$0.00	Current Period % Complete	0%
Current Cumulative Costs	\$5,973,773.30	Current Cumulative % Complete	99.9%

Option 2 Contract Value	\$7,767,990.34		
Prior Period Cumulative Costs	\$7,720,026.80	Prior Period Cumulative % Complete	99.4%
Current Period Costs	\$47,978.76	Current Period % Complete	0.6%
Current Cumulative Costs	\$7,767,990.34	Current Cumulative % Complete	100%

Option 3 Contract Value	\$7,114,696.44		
Prior Period Cumulative Costs	\$6,888,739.72	Prior Period Cumulative % Complete	96.8%
Current Period Costs	\$40,869.01	Current Period % Complete	0.6%
Current Cumulative Costs	\$6,929,608.76	Current Cumulative % Complete	97.4%

Option 4 Contract Value	\$7,333,038.18		
Prior Period Cumulative Costs	\$1,090,640.80	Prior Period Cumulative % Complete	14.9%
Current Period Costs	\$459,406.73	Current Period % Complete	6.2%
Current Cumulative Costs	\$1,550,047.53	Current Cumulative % Complete	21.1%

12.0 WEATHER

EQM experienced delays associated with several rain-outs, wet field condition and/or community events:

Weather/Shutdown Events:

Week 1: 8-1 to 8-4

Thursday 1st – Shutdown All Day (Rain)

Friday 2nd – Shutdown All Day (Rain)

Saturday 3rd – Shutdown All Day (Rain)

Sunday 4th – Shutdown All Day (Rain)

Week 2: 8-5 to 8-11

Monday 5th – No On-Road Hauling (Rain)

Wednesday 7th – Shutdown @ 2:30 pm (Rain)

Thursday 8th – Shutdown All Day (Rain)

Friday 9th – No Waste Hauling/Porter Trailer Demo Only (Rain)

Saturday 10th – No On-Road Hauling (Rain)

Sunday 11th – No On-Road Hauling (Rain)

Week 3: 8-12 to 8-18

Friday 16th – Shutdown @ 10:00 (Rain)

Saturday 17th – No On-Road Hauling (Rain)

Sunday 18th – Shutdown All Day (Rain)

Week 4: 8-19 to 8-25

Monday 19th – No On-Road Hauling (Rain)

Thursday 22nd - Shutdown All Day (Rain)

Friday 23rd – No On-Road Hauling (Rain)/Postponed Start Off-Road @ 10am (Equipment)

Saturday 24th - Off-Road Stockpiling Only (MW-14), Postponed Start @ 3:00 pm (Rain)

Sunday 25th – Off-Road Stockpiling Only (MW-14), Early Shutdown @ 10 (Rain)

Week 5: 8-26 to 8-31

Tuesday 27th – Shutdown All Day (Rain)

Wednesday 28th - No On-Road Hauling (Rain)

Friday 30th – Shutdown All Day (Rain)

Saturday 31st – Shutdown All Day (Rain)

13.0 30-DAY LOOK AHEAD

Work scheduled for September includes the following:

- Gypstack Repository: Complete storm water improvements at the per the contract modification with continual maintenance as needed;
- Gypstack Repository: Clear and grub some of the area south of repository per COR direction (on hold);
- Area MW-09: Replace fencing, remove small amount of remaining waste where power line was moved;
- Porter Trailer: Move remaining trailers not to be demolished and continue removal of waste;
- Area 2-6W & North Powerline: Continue removing waste along the power line and drainage area north of Pump Lane, Continue capping and placing clay for drainage as well as continue work on water retention structures on Wald and McDonald properties.
- MW 14-01_02: Continue waste removal;
- MW-18-01: Resume removing waste;
- MW-26-01: Place fencing around water retention;

- MW-26-04_05: Continue removing waste, capping and placing clay for drainage where required. Due to this being a direct drainage path into Short Creek, two water retention structures are planned for these areas, and well as multiple rock check dams.

ATTACHMENT A
REQUEST FOR INFORMATION (RFI) REGISTRY

**ORONOGO-DUENWEG MINING BELT SITE – Phase 10
REQUEST FOR INFORMATION REGISTRY**

RFI #	Item Description	Date Sub Submitted To EQM	Date EQM Submitted To USEPA CO	Date CO Returned Response To EQM	Action Taken

ATTACHMENT B
SUBMITTAL REGISTRY

**ORONOGO-DUENWEG MINING BELT SITE Phase 10
SUBMITTAL REGISTRY**

Section Number	Section Title	Submittal #	Item Type	Date Sub Submitted To EQM	Date EQM Submitted To USEPA CO	Date CO Return Submittal To EQM	Approved/ Disapproved
5	Deliverables	1	Sampling and Analysis Plan	NA	11/18/15	11/2015	Approved via email
			Sampling and Analysis Plan, Rev 1	NA	2/22/18	10/10/18	Pending; see section 10
5	Deliverables	2	Chemical Quality Control Plan	NA	11/18/15	11/2015	Approved via email
5	Deliverables	3	Quality Assurance Project Plan	NA	11/18/15	11/2015	Approved via email
			Quality Assurance Project Plan, Rev 1	NA	1/15/19		Pending
5	Deliverables	4	Project Management Plan	NA	11/18/15	11/2015	Approved via email
5	Deliverables	5	Health and Safety Plan	NA	11/18/15	11/2015	Approved via email

ATTACHMENT C
SITE FIGURES







2-8



ATTACHMENT D
PHOTOGRAPHS



Figure 1 – Stockpiling Waste at MW-14 in Preparation for loading on-road trucks



Figure 2 – Excavation of waste at MW-26-4



Figure 3 – Capping portion of Snowball Repository